# User Guide for the
CLassroom On Task Tool – CLOTT
Version 1.6.2

Introduction

Clott is a digital teaching aid used by a teacher to both inform and manage classroom tasks. It was developed from the need to project pace and challenge into lessons while accepting the reality that teachers often have to set limits for tasks and then fail to enforce them when other classroom needs take priority. It was when I saw on a training course[1] how efficient a timer[2] could be in both overcoming this problem and ensuring pace and challenge, that Clott was born.

---
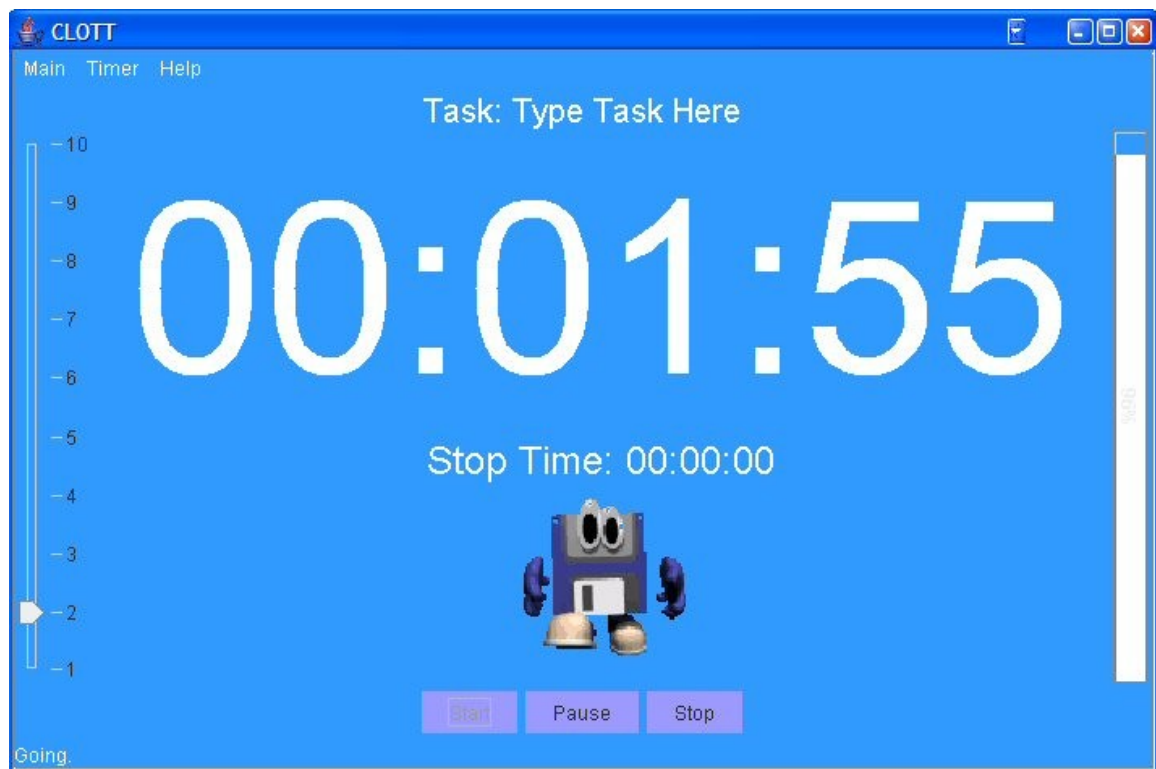
[1] GTP/OTT/NQT Training run by Dr Moya Dean, ICT Consultant, Medway LEA

[2] The timer presented by Dr Moya Dean was aimed at Primary Schools and she wanted a timer that could be used in a Secondary School. I said that I would look out for one or write one – I could not find one and wanted a challenge, so I set about creating Clott in April 2004.

Contents

This Manual

This manual is designed to give an overview of all of the functions of Clott and how to use them. Towards the end I have encapsulated the 'Installation Instructions'. I suggest that you run Clott alongside reading so that you can try out the functions. To this end, start with '', move onto 'Main Screen', 'Menus' and then 'Setting the Timer', once you have grasped the essentials wander and enjoy.

G J Barnard

Contact

If you have an issue or problem that you would like to raise, then please email:gjbarnard@gmail.com

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Java™ logos / installation screens are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. or other countries (java.sun.com).
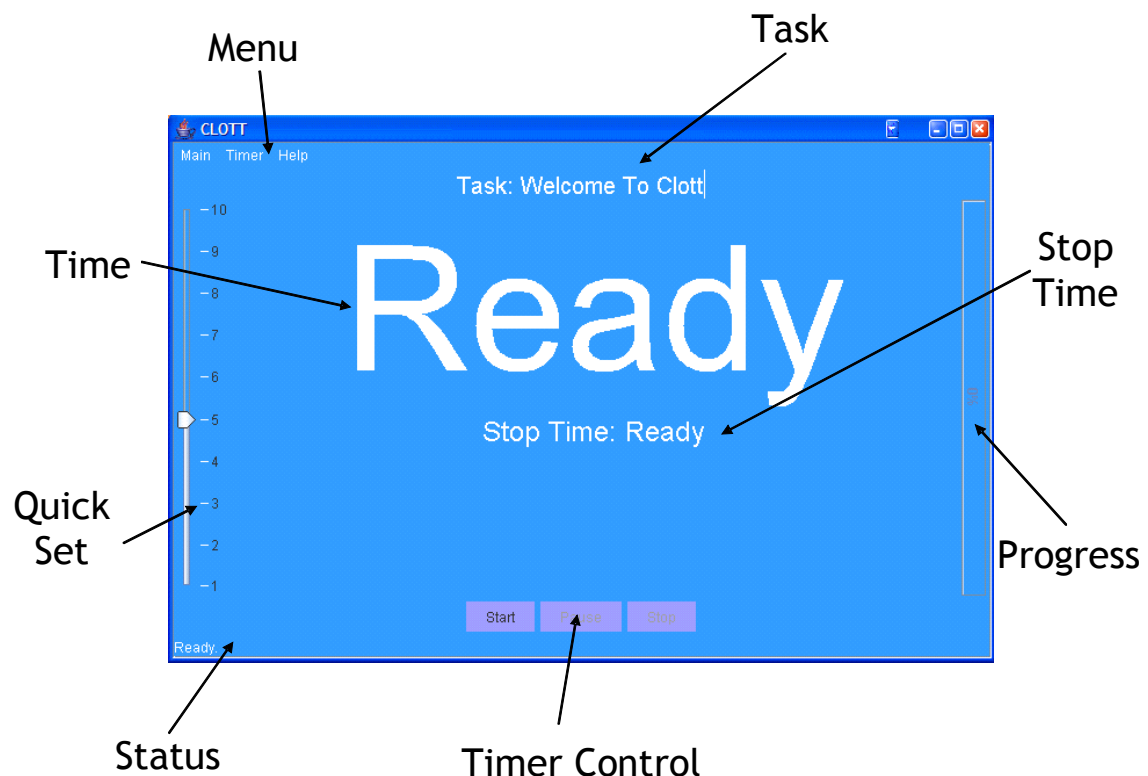
Firefox® is copyright of the Mozilla® Foundation (www.mozilla.org).

Operation

Clott can be run by double clicking on the 'clott.jar' file (see the 'Installation Instructions') or one of the supplied html files to run as an Applet – see 'Clott as an Applet'.

Main Screen

This is the main screen of Clott:

On this screen the time is displayed – initially ten seconds. There are three main control buttons 'Start', 'Pause' and 'Stop'. 'Start' starts the timer going, 'Pause' pauses it and 'Stop' stops it. The other facilities are as follows:

'Quick Set'	Quickly set the timer to count down to zero from the selected number of minutes.
'Progress'	A percentage of the progress the timer has made towards the end time. It will go down when the time running backwards and up when the time is running forwards.
'Menu'	There are three menu's 'Main', 'Timer' and 'Help' which are discussed in detail later on in the guide.
'Task'	This is an area of text where you are free to type in what you want the class to do in the time.
'Status'	What Clott is doing and general information.

Operation

Before you start Clott going, you can set several things:
- Time
- Animation
- Music
- Foreground and Background Colour
- Task
- Display in Binary
- Display Animation
- Show History
- Show Instructions
- Show About

Note: The default time is ten seconds.

To start Clott, click on the 'Start' button, whilst the timer is running, you will not be able to alter the Time, Animation or Music until the timer is stopped – everything else is accessible.

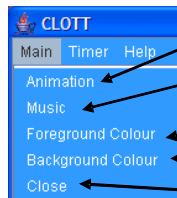When Clott is running, the image will be animated and the progress bar will move:

Clott Running

Progress bar coming down

Image is animated
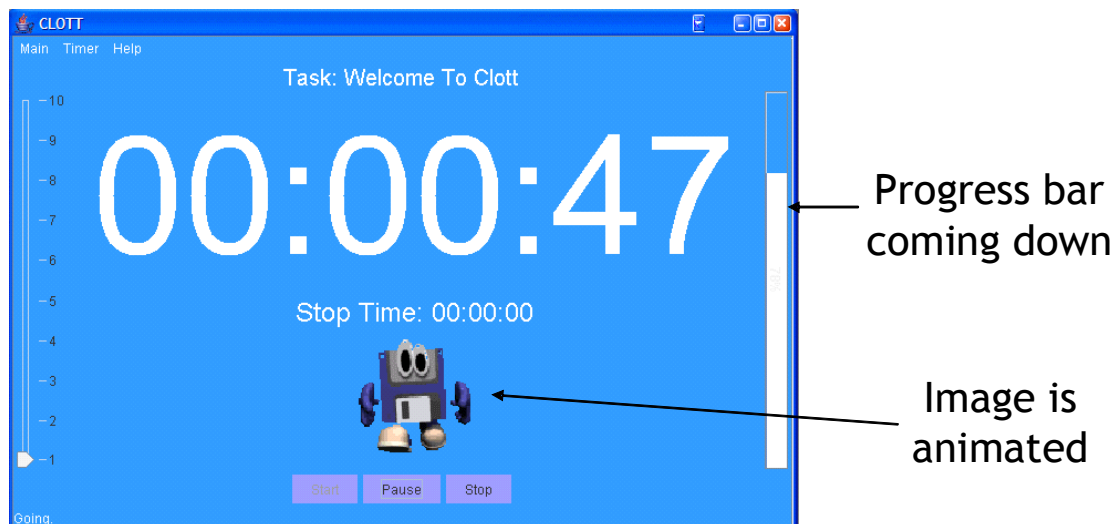
Menus

The menus allow access to most of Clott's functionality, and are as follows:
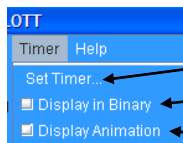
Main Menu

Change / Adjust the Animation

Use / Control countdown music

Change the Foreground Colour

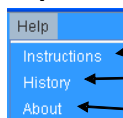Change the Background Colour

Close Clott

Timer Menu

Set the timer

Also display the time in Binary
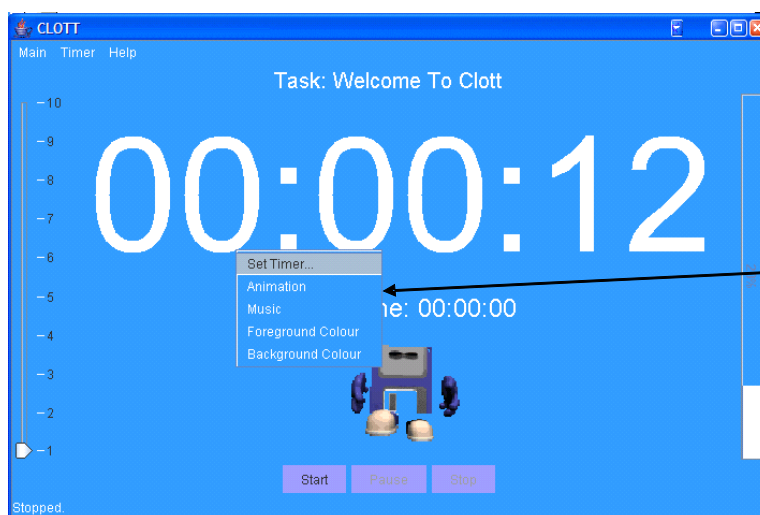
Turn on / off the animation

Help Menu

Simple Instructions

History of Clott development

About Clott

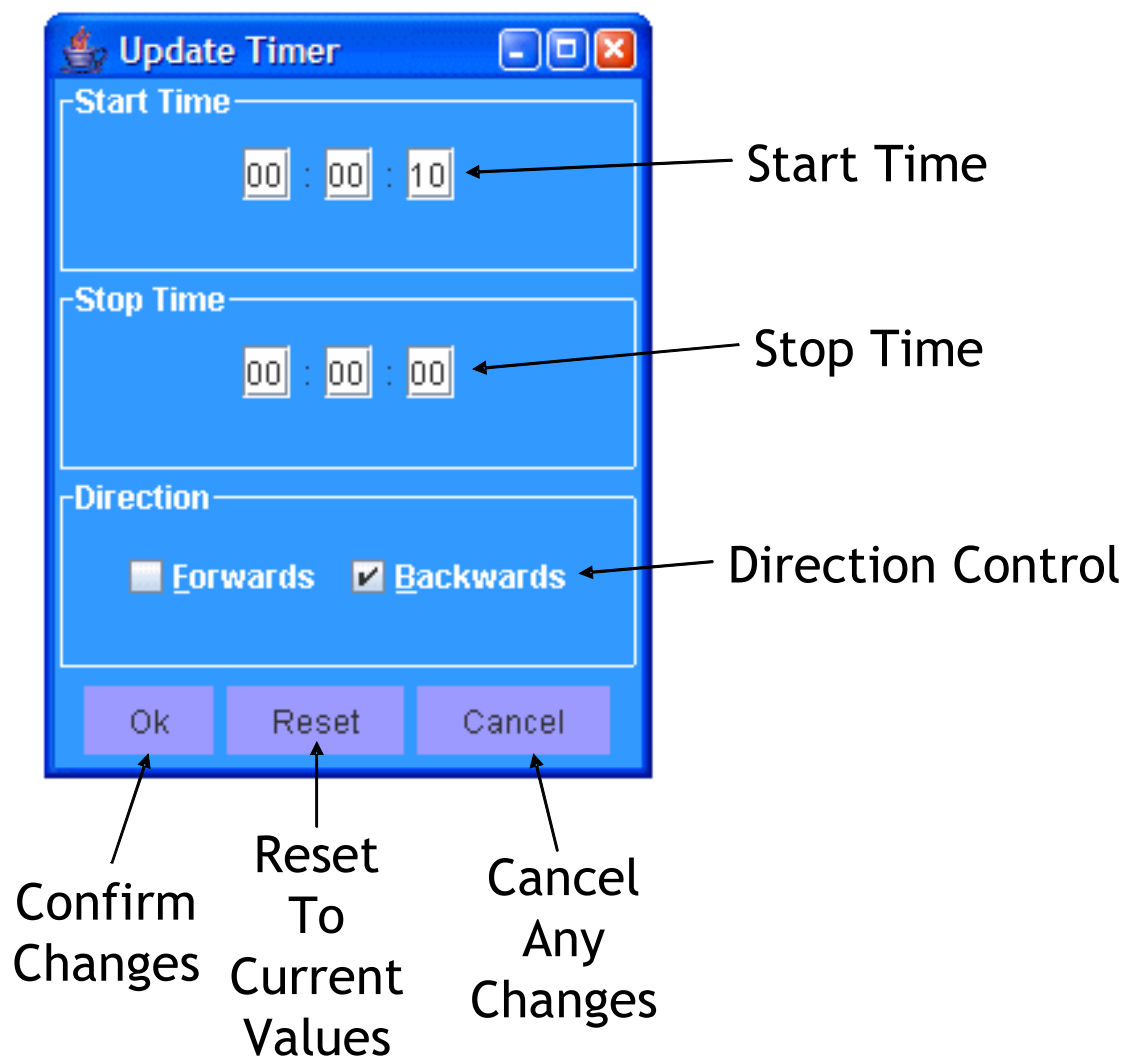Some of the most commonly used options are available on a popup menu (activated with the right mouse button[3]):

Click to get the popup menu

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[3] Left click if you are using a left handed mouse.

Setting the Timer

There are two ways that you can set the timer. The first, and quickest, is the 'Quick Set' slider (See 'Main Screen'); you simply set the slider to the number of minutes that you want the timer to count down to zero from. The second allows a far greater range of values and the ability to control direction – This is accessed through the 'Set Timer…' option on the 'Timer Menu' and popup menu.

Update Timer Dialog

Start Time

Stop Time

Direction Control

Confirm Changes

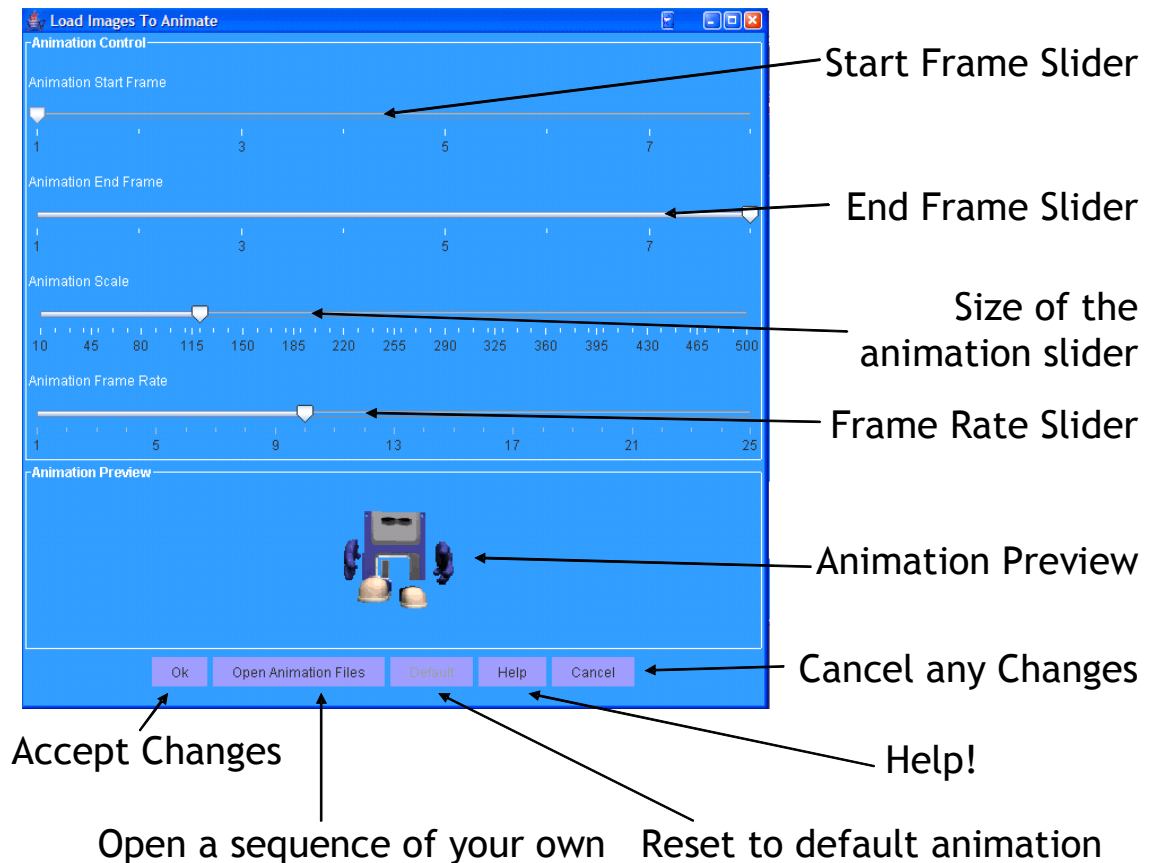Reset To Current Values

Cancel Any Changes

Here you can set the timer as follows:

Start Time   The start time of the timer in hours, minutes and seconds.
Stop Time   The end time of the timer in hours, minutes and seconds.
Direction Control   The direction you want the timer to go, 'Backwards = Count
                    Down' and 'Forwards = Count Up'.
OK Button   Accept, validate the changes and return to the 'Main
                    Screen', if anything is wrong, then you will be told.
Reset Button   Reset to the last set time (including direction).
Cancel Button   Cancel any changes you have made and return to the 'Main
                    Screen'.

Animation

You can configure and control the animation from the 'Animation Dialog' available from the 'Main' and popup menus. Initially the default animation will be shown, along with its default settings:

Start Frame Slider

End Frame Slider

Size of the animation slider

Frame Rate Slider

Animation Preview

Cancel any Changes

Accept Changes

Help!

Open a sequence of your own   Reset to default animation

Animation Information

Each animation is actually a defined sequence of images, a bit like a flick book. The first frame in the sequence is given the number one and the last is given the number equal to the total number of images. This is automatically calculated by Clott and the Start / End Frame sliders adjusted. For more information on how to set up your own animation, see 'Loading Your Own Animation' below.

Animation Controls

Animation Start Frame	This sets the first frame in the sequence of images that will be displayed.
Animation End Frame	This sets the end frame in the sequence of images that will be displayed.
Animation Scale	This sets how big the animation is. To restore to default right click[4] for a popup menu.
Animation Frame Rate	This sets how fast the animation will play – in images (frames) per second. To restore to default right click[5] for a popup menu.
OK Button	This tells Clott to accept all the changes and return back to the 'Main Screen'.
Open Animation Files Button	This allows you to setup and use your own sequence of images, see 'Loading Your Own Animation' below.
Default Button	This allows you to reset back to the default animation.
Help Button	Shows basic help information.
Cancel Button	Cancel any changes you have made and return back to the 'Main Screen'.

Animation Preview

This is the area of the dialog that shows you what the animation will look like.

Loading Your Own Animation

To load your own animation, all you need to do is tell Clott the location and name of one of the images for your animation. As long as each image is numbered and is in the same directory, Clott will work it out. The images need to be of the same picture format – which can be one of JPEG, GIF, PNG and TIF.

Clott creates the effect of an animation by using a sequence of images, just like a flick book. In order for this to work each image needs to have a number to state what 'frame' the image is within the animation. So in order to use your own animation you must correctly number a sequence of images. So if you have a set of nine images with the name 'egg' and they are 'jpg' files, then you should have the files: egg1.jpg, egg2.jpg … egg9.jpg. If you have twenty images, then you should have the files: egg01.jpg, egg02.jpg … egg10.jpg, egg11.jpg … egg20.jpg. If you have one hundred and twenty images (possible) then you would have the files: egg001.jpg, egg002.jpg … egg010.jpg … egg099.jpg … egg120.jpg.
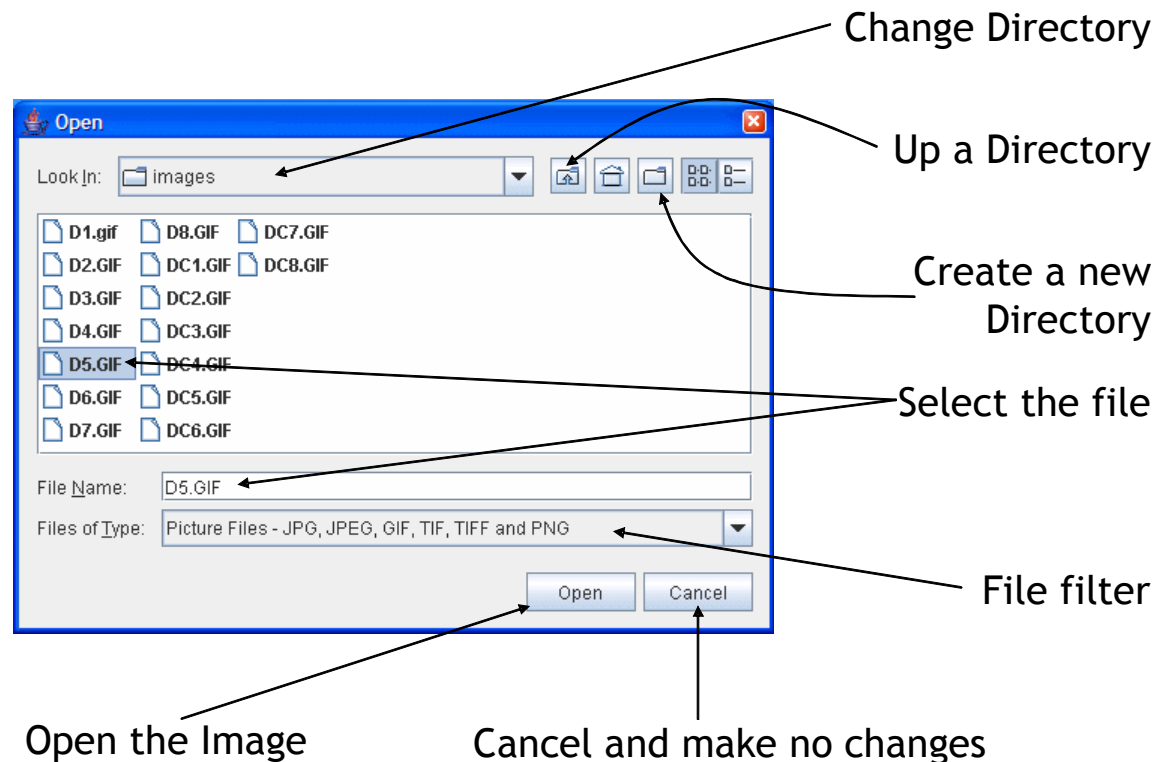
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[4] Left click if you are using a left handed mouse.
[5] Left click if you are using a left handed mouse.

Clott is intelligent, so the number sequence for the images does not need to start at one or be at a certain part of the filename. For example, e05gg.jpg to e19gg.jpg will still work.

Clott (or rather Java) has a limitation that the total size of all the images must not exceed 1.36 MegaBytes – this is a limitation I hope to eliminate in future.

The open screen:

Change Directory

Up a Directory

Create a new Directory

Select the file

File filter

Open the Image

Cancel and make no changes

Use the open dialog as you would normally do to find one of the images in the sequence that you want to animate.

- continued -

Music

You can load music to play when the timer reaches a certain point before the time runs out. This point is calculated as the duration of music you have set less the finish time, so if the duration is fifteen seconds, then the music will start to play fifteen seconds before the timer stops.

Music can be configured on the 'Music Dialog' this is accessed through the 'Music' option of the 'Main' and popup menus – see 'Menus'.

The 'Music Dialog' looks like this:

Music Information

Music Control

Inactive when no music loaded

Open a music file   Reset   Help!   Cancel any changes
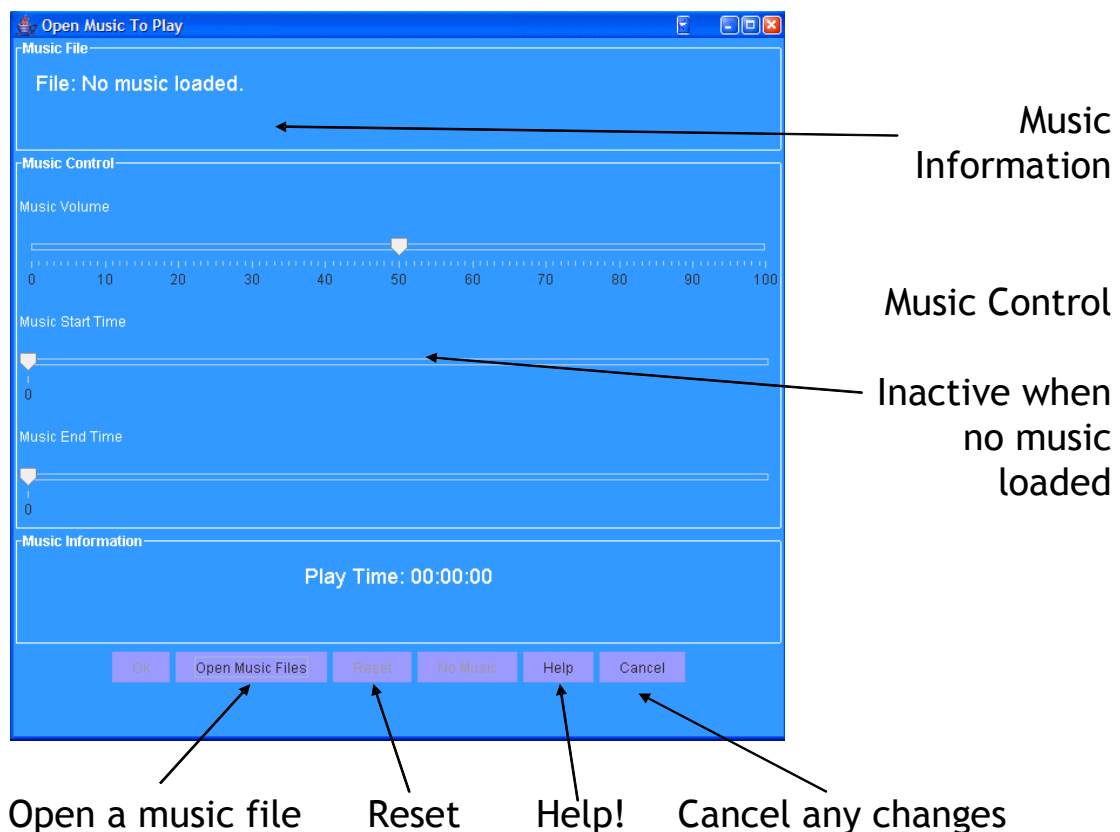
- continued -

Music File

This area contains information about the file you have loaded (or not).

Music Control

Here you will find controls for setting the music within Clott:

Music Volume   The volume of the music as a percentage.
Music Start Time   The start point within the music file that you want to start with.
Music End Time   The end point within the music file that you want to end with

Music Information

This contains details of how long the music will play and therefore gives an indication of when it will start playing. If the time is one minute, two seconds, then the music will start playing that amount of time before the timer stops.

Music Buttons

Open Music Files   Open a music file to play – see 'Loading Music' below.
OK   Use the current settings and return to the 'Main Screen'.
Reset   Forget any changes and return to the point before any changes were made.
No Music   Once music is loaded, you can elect not to use it anymore.
Help   Show basic help.
Cancel   Cancel any changes and return to the 'Main Screen'.

Loading Music

To load your own music, all you need to do is tell Clott the location and name of one of the music. The music can be one of MP3, WAV, AU, AIFF, MID, MP2, MVR, GSM and CDA[6] – the last being the format on an Audio CD.

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[6] Microsoft™ Windows™ Only.

The open screen:

Change Directory

Up a Directory

Create a new Directory

Select the file

File filter

Open the music

Cancel and make no changes
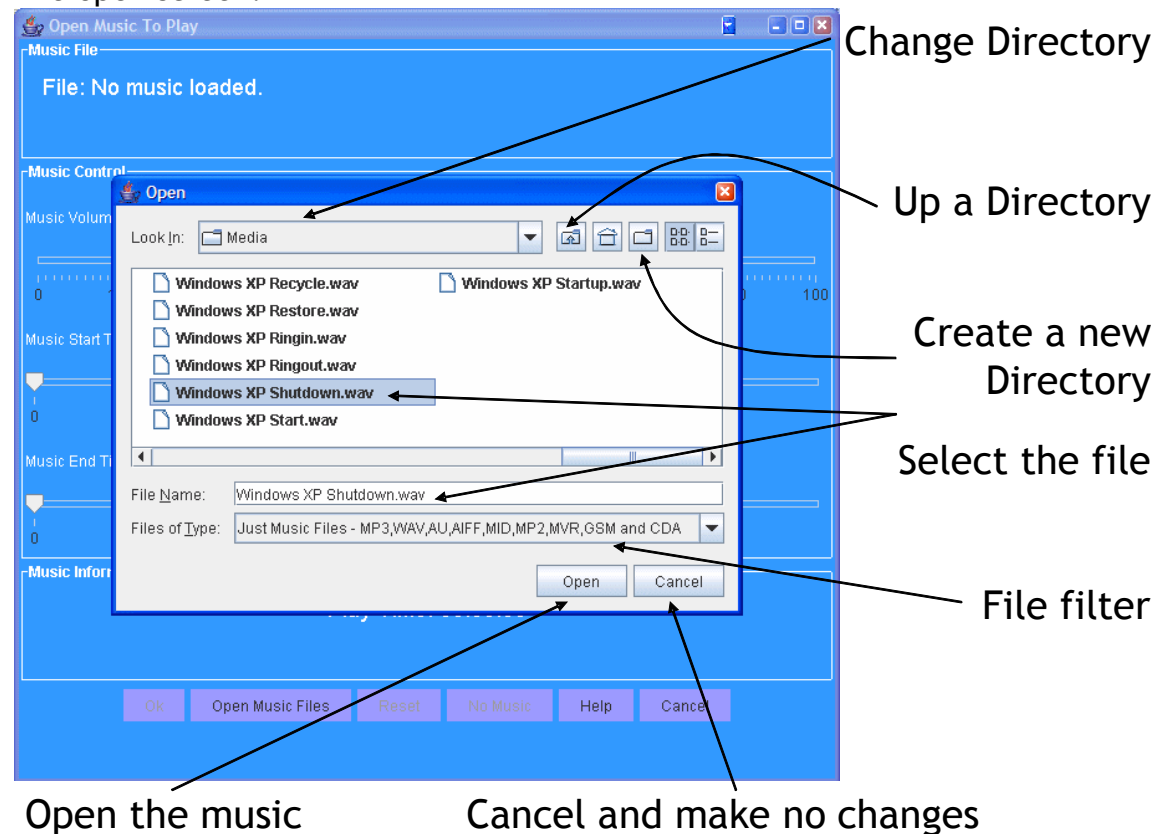
Use the open dialog as you would normally do to find the music that you want to use.

After choosing the music there will be a one second delay whilst the music file is validated and information gleaned from it.

- continued -

You will then see that the Music Controls are now available to you:

Music Volume

Music start and end points within the total duration of the music

How long the music will play

Go with the music and settings selected   Have no music at all
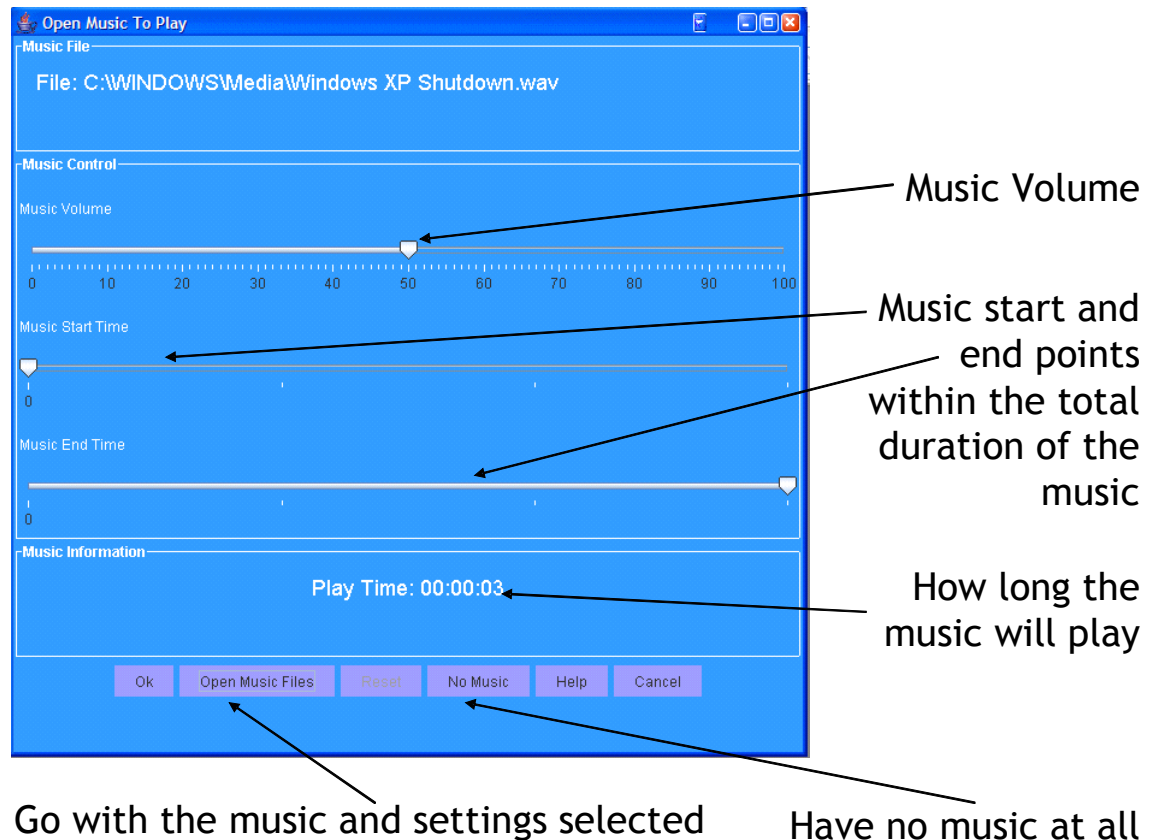
Now that the music has been loaded you can set it up, adjust the volume, the start point and the end point. If you are happy with it, then click on 'OK' to accept the music or 'Cancel' to ignore any changes made.

Enhanced Features

Clott has many additional features that can be used to enhance your use and enjoyment of the tool. You can: Change the colour, use in a web page and have preset colours and display the time in binary.

Changing the Colour

There is the facility to change the colour scheme of Clott through the 'Foreground Colour' and 'Background Colour' options of the 'Main' menu and popup menu (see 'Menus'). Choosing a colour option will bring up a dialog that allows you to set from a predefined range or choose from one of fourteen or so Million colours:

Changing the foreground and background colours
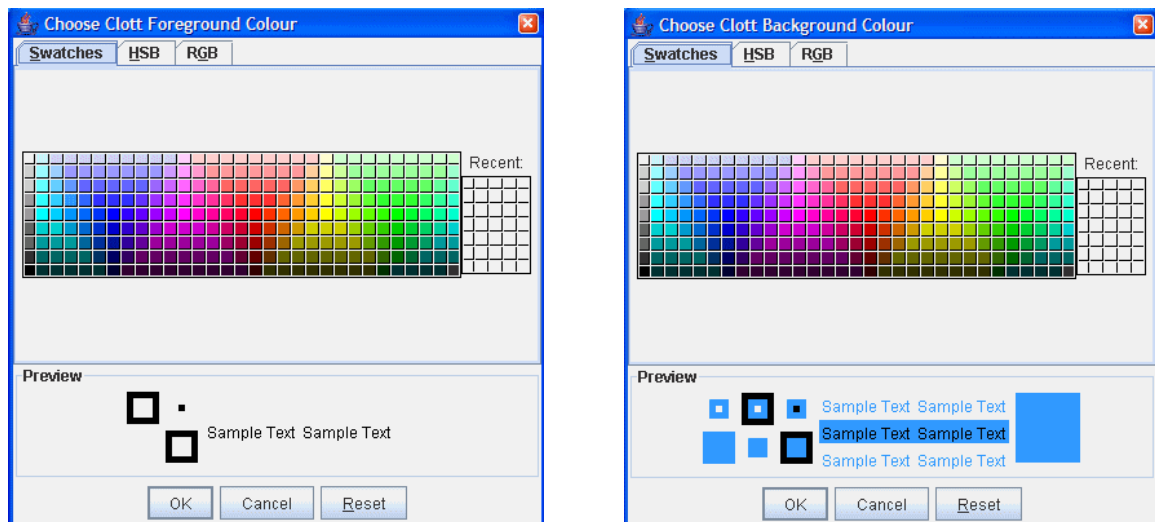
You can also set the colours to you own before Clott starts if you are running in a Web Browser, see 'Clott as an Applet' below.

Clott as an Applet

Clott has the ability to run as an Applet. An applet is a Java program that runs within a Web Browser such as Microsoft™ Internet Explorer[7] or Mozilla™ Firefox[8] or any other Java enabled browser. The browser is normally configured when the Java JRE is installed, see 'Select the browser types' of the 'Installation Instructions'.

To run as an Applet you need to use one of the supplied html files – such as 'clott_colour.html' or you can write your own – see 'Setting the colours in HTML'.

Clott looks like this:

Clott in a web browser – an Applet
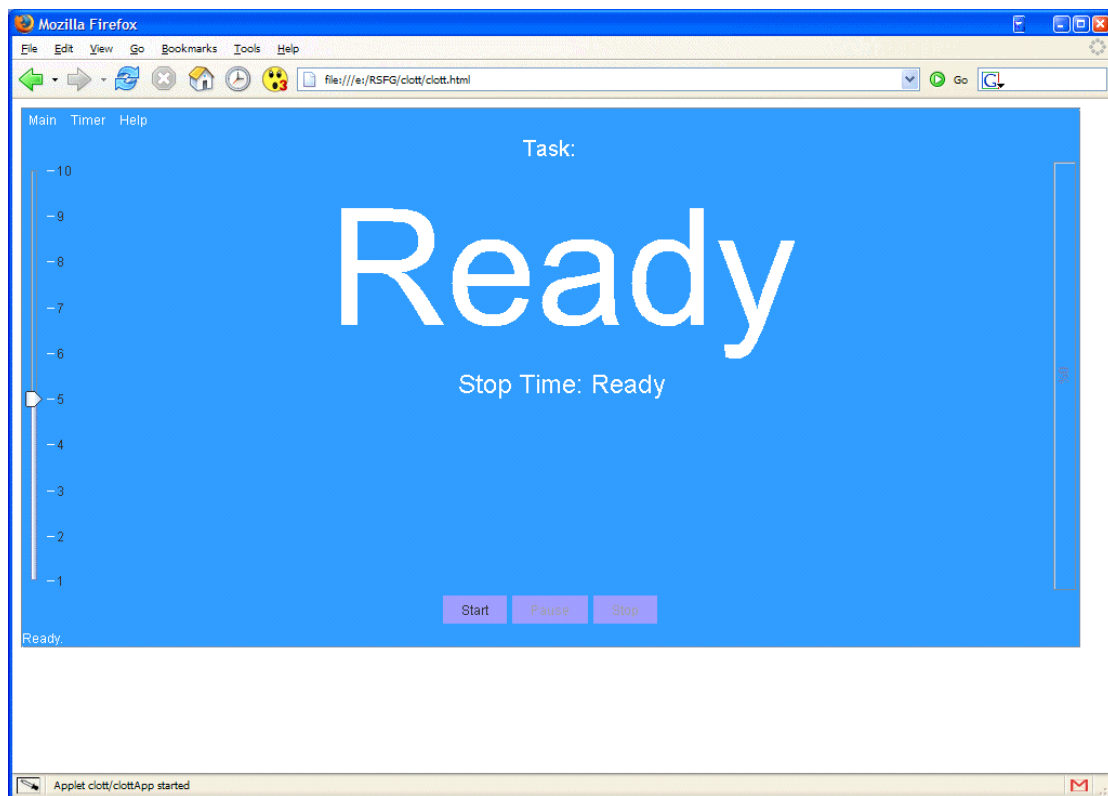
Firefox is a registered trademark of the Mozilla Foundation

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[7] Normally contained within Windows XP™ see
http://www.microsoft.com/windows/ie/default.mspx - all trademarks respected.
[8] Available from http://www.getfirefox.com/ - all trademarks respected.

Setting the colours in HTML

In order to set the colours in an HTML file so that every time that you run Clott as an Applet you get the colours that you want, you need two things: A HTML file and the RGB values of the foreground and background colours.

The HTML file

Clott is supplied with several HMTL files, but just in case you need to write your own or would like a template, copy the following into WordPad:

```
<HTML>
<TITLE>Clott</TITLE>
<APPLET CODE = "clott/clottApp.class" ARCHIVE = "clott.jar" WIDTH =
980 HEIGHT = 500 ALIGN = "baseline">
<PARAM NAME = FR VALUE="255">
<PARAM NAME = FG VALUE="255">
<PARAM NAME = FB VALUE="255">
<PARAM NAME = BR VALUE="51">
<PARAM NAME = BG VALUE="153">
<PARAM NAME = BB VALUE="255">
</APPLET>
</HTML>
```

Then save as an ordinary text file but with the extension '.html' – for example:
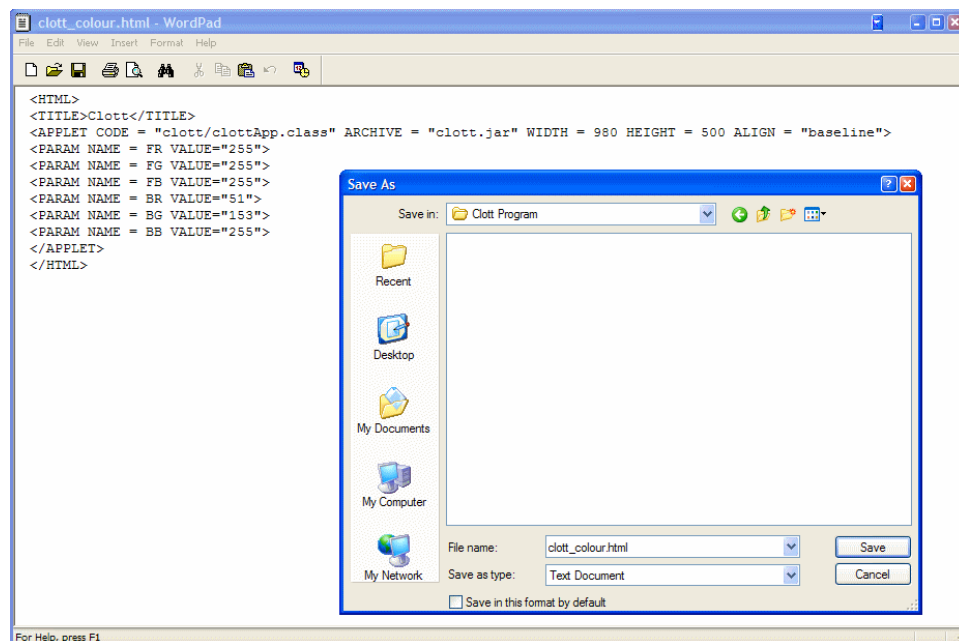
The RGB Values

When you change the Foreground or Background (see 'Enhanced Features') there is a tab that will tell you the red, green and blue 'RGB' values for the colour you have chosen.

Bringing it all together

You need to type the RGB values into the HTML file you created above using the following figure:

Parameter Meanings

FR = Foreground Red,
FG = Foreground Blue,
FB = Foreground Blue,
BR = Background Red,
BG = Background Green
and
BB = Background Blue.

You need to maintain the quotes and type each value in between them.

- continued -

Small Clott

Sometimes, you may wish to display information alongside Clott on the screen. This can prove troublesome with the standard size, so, there is an option for a 'Small' version:

In this mode, Clott will always be visible. To get to this mode, right click and select 'Small On':
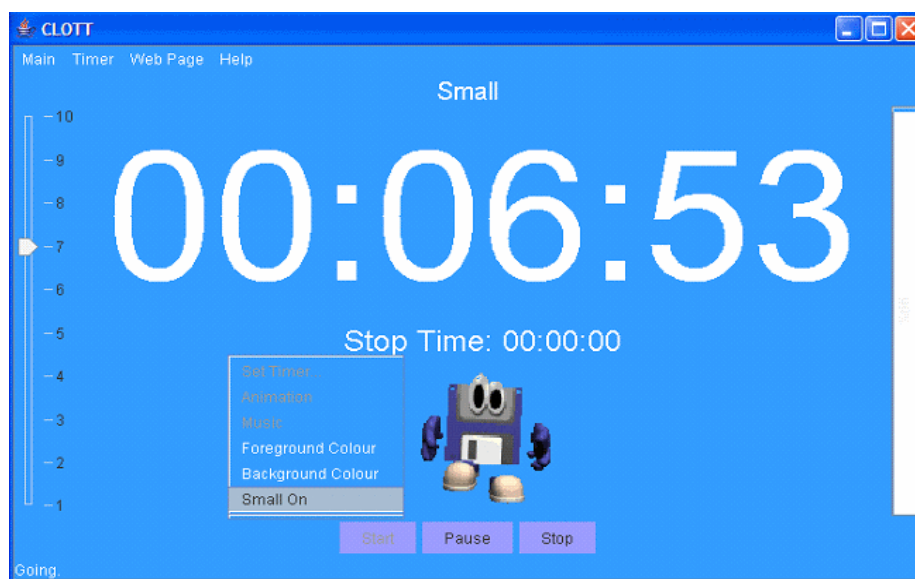
When in 'Small Mode', the 'Start', 'Pause' and 'Stop' buttons are replaced by extra options on the pop-up menu. You also have the option to return to normal size with 'Small Off':
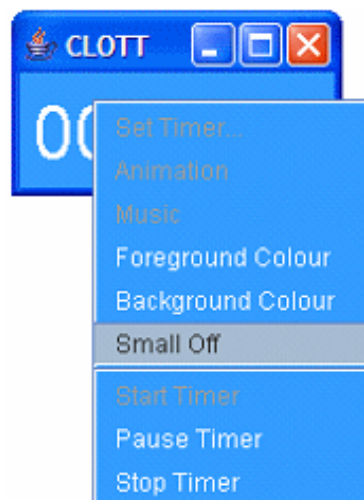
Web Page

Sometimes, you want to have the ability for the student to know how much time is left without having to constantly look at the projected screen that you are using Clott on. In this situation, Clott has the ability to constantly update a web page with the task, start and stop times. When this ability is combined with a network drive that is visible by both yourself and the students, then many copies of the task and time can be achieved.

To set-up this function you need to specify where the web page will be created from the 'Web Page' menu:
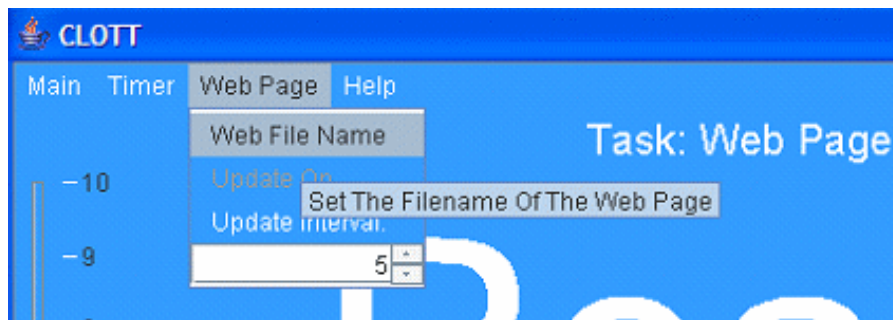
Then select the directory (preferably one that can be seen by all) and type in a name for the page:
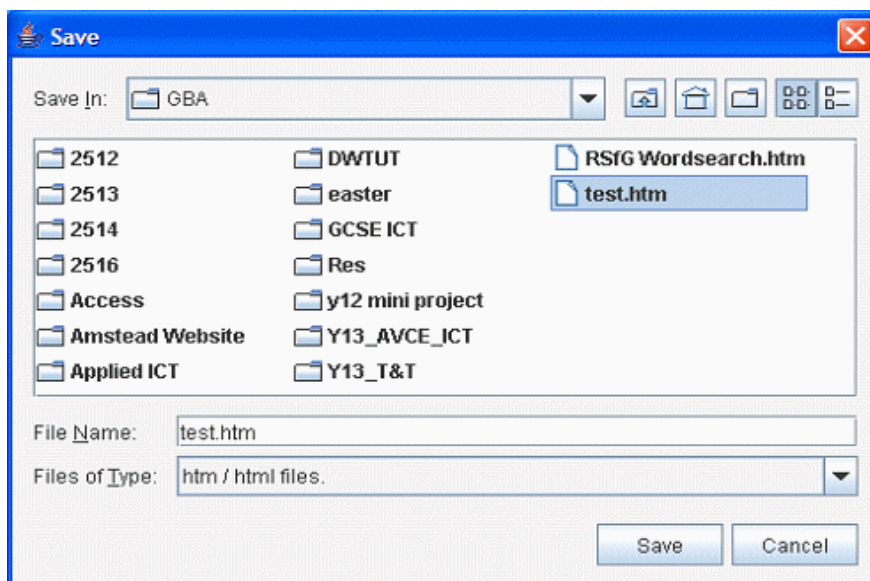
Now set-up Clott as normal. If it is the first time you have used this web page file, then start and stop Clott so that it will create the file for you.

Now get each student that you want to use the facility to open the web page on the network drive by double clicking on it in the normal way, for example:
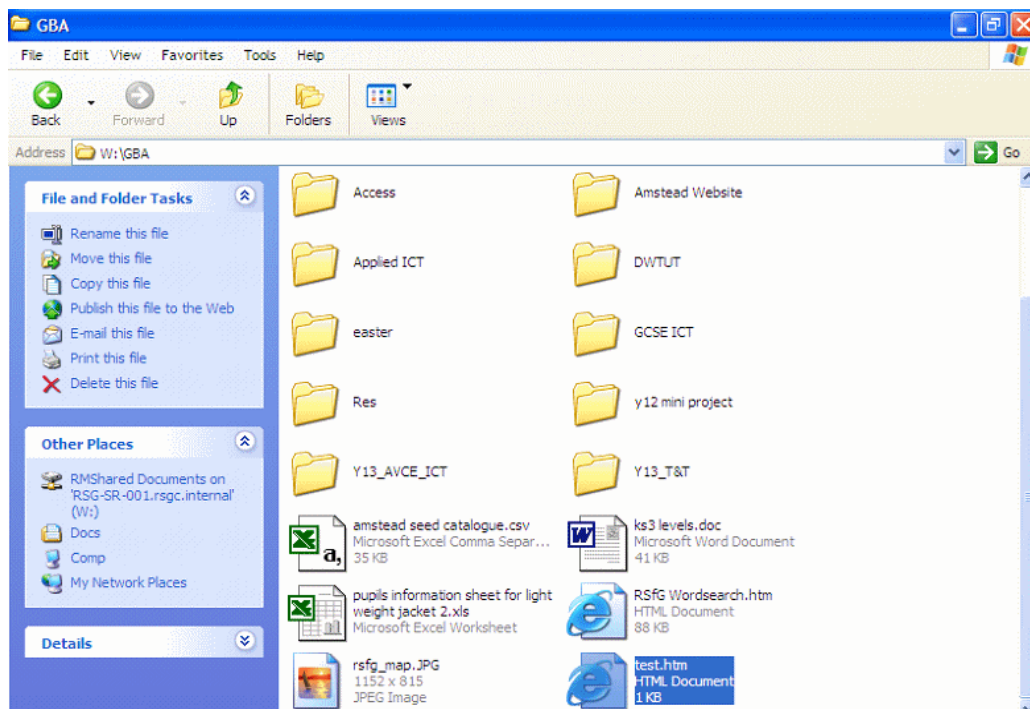
Each student will have something like this:
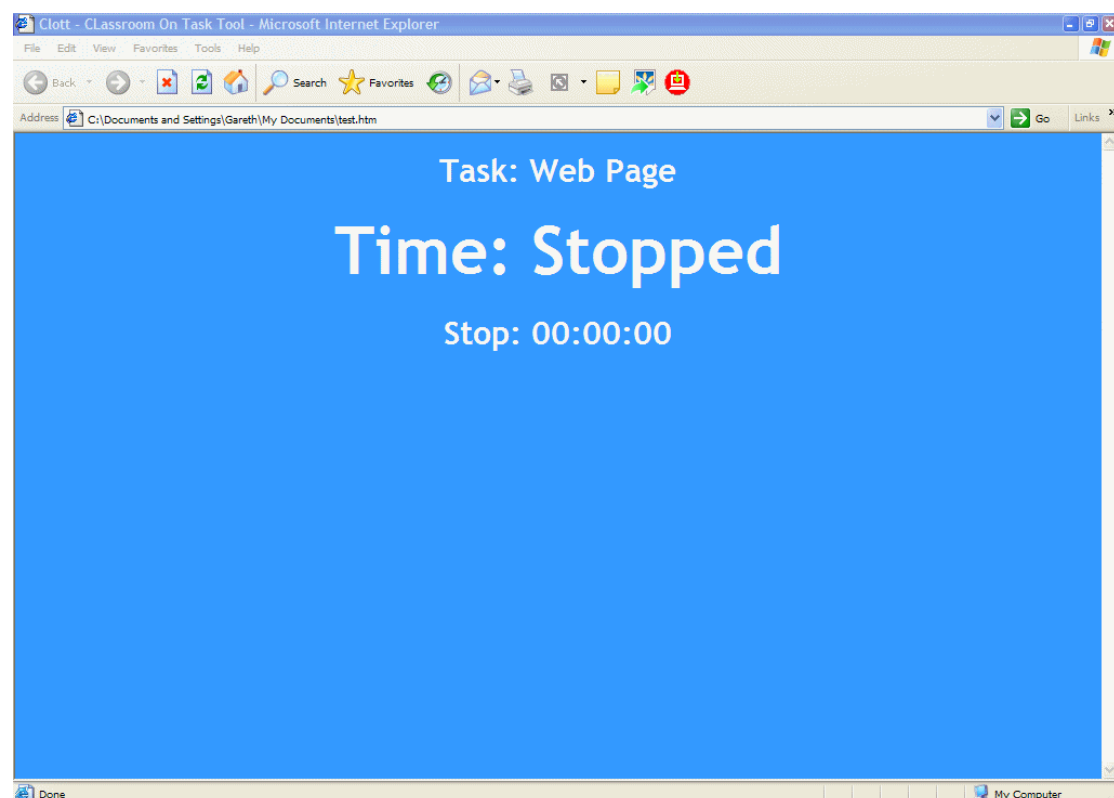
This page will automatically update every number of seconds that you can set on the 'web page' menu:
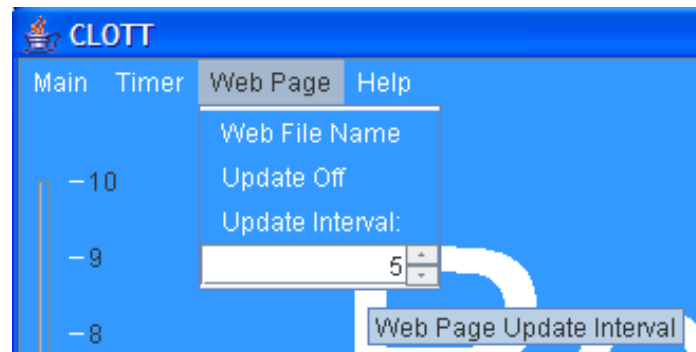
When you start Clott, it will update this web page:
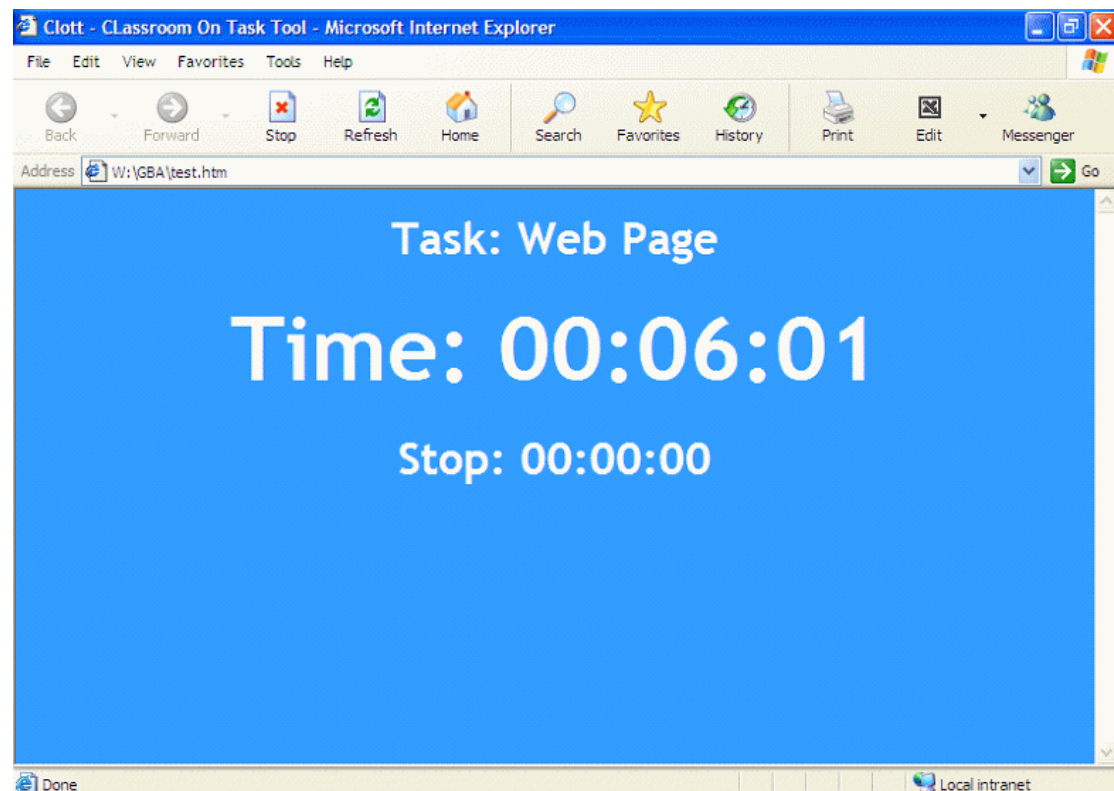
Remember, this is just a web page, you have control over Clott itself, including the ability to change the fore and background colours which will also update the web page.

- continued -

Display Time in Binary Function

Clott has the ability to display the main timer value in Binary as hours, minutes and seconds. I added it as a teaching aid for ICT teachers to show how binary works in relation to decimal.

To toggle this function on and off, choose 'Display in Binary' on the 'Timer' menu:

Display time in Binary function
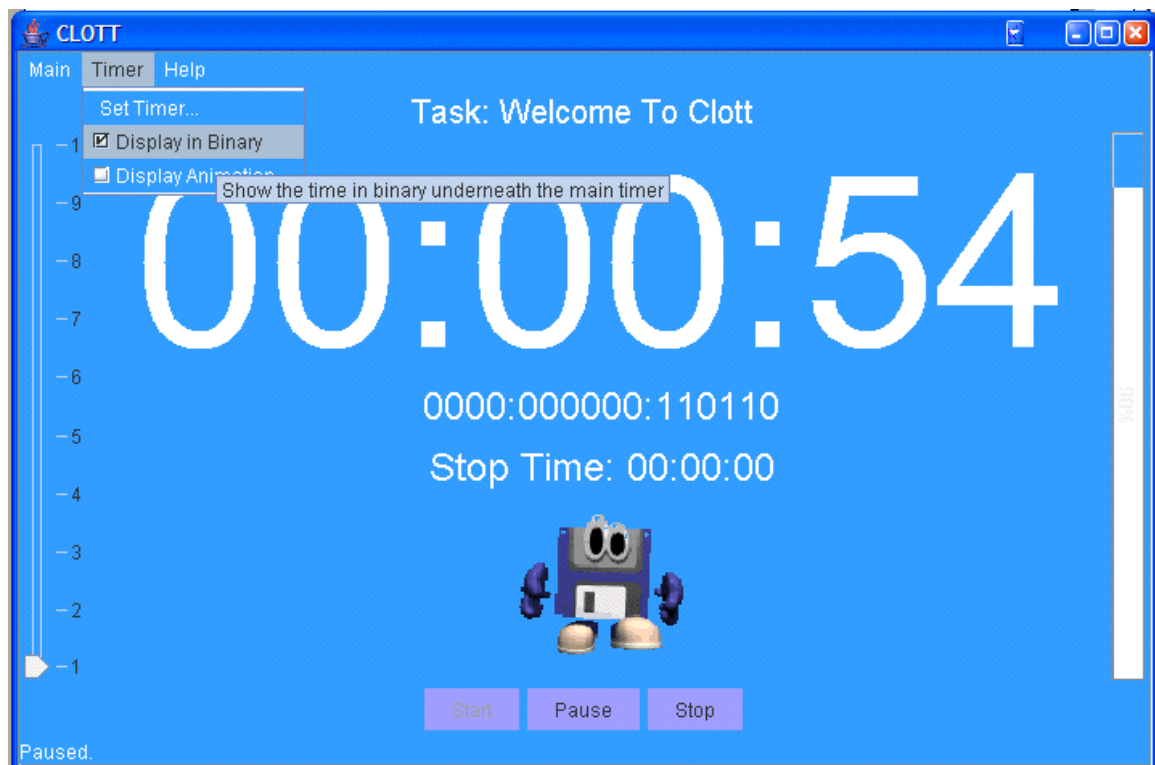
Error Messages

Sometimes when things do not go as planned, a message will appear:

Error Messages
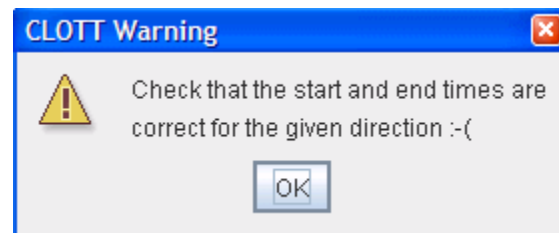
There are three types of message:

Information	Nothing is wrong, just information for you.
Warning	Something is not right, but you can do something about it – please read the message text.
Error	Something has happened, which means that Clott will have to be restarted – in this case please would you e-mail me on gjbarnard@gmail.com with details of the message so that I can fix the problem and issue a new version of Clott.

Installation Instructions

Ensure that you have:

clott.jar

jre-1_5_0_01-windows-i586-p.exe

jmf-2_1_1e-windows-i586.exe
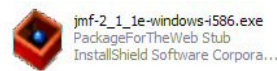
It is essential for the correct operation of Clott that you use the correct versions for the JRE and JMF: JRE - 1.5.0_01 (minor updates within 1.5.0 should still work) and JMF – 2.1.1e. If you are unsure, then please follow the procedure in the 'Contacts' section.

Installation order:

1. Log into computer as an administrator privileged user.

2. Install JRE by running jre-1_5_0_01-windows-i586-p.exe -
, accept the licence agreement and select custom install:
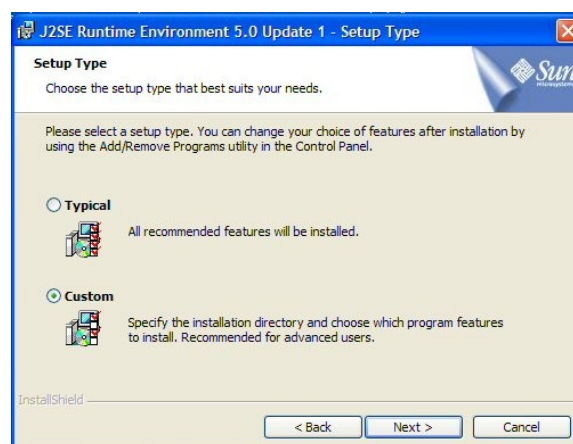
3. Ensure that optional items are as follows:
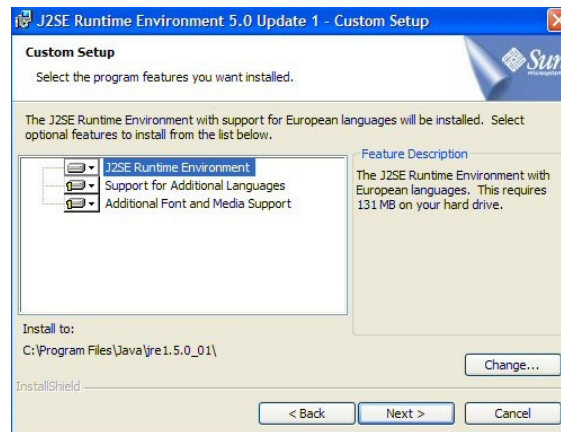
4. Select the browser types:
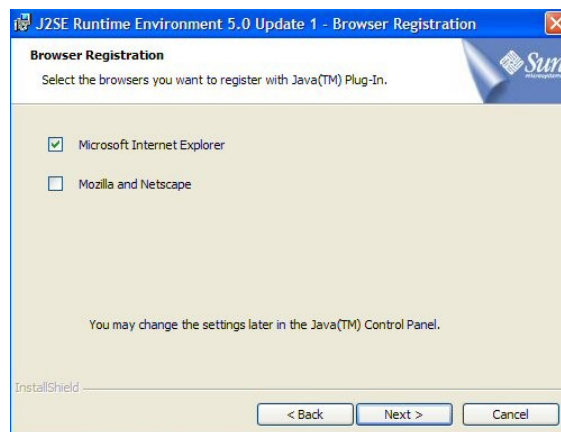
5. Finish:

6. Reboot PC and repeat step 1.

7. Install JMP by running jmf-2_1_1e-windows-i586.exe -
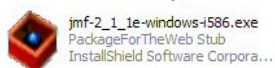
, accept the licence agreement:
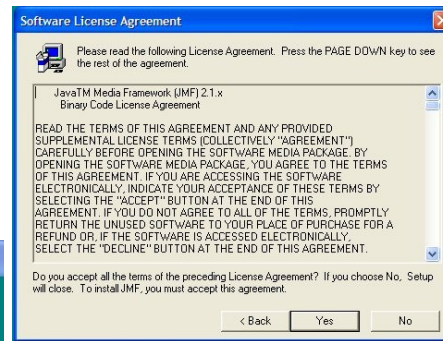
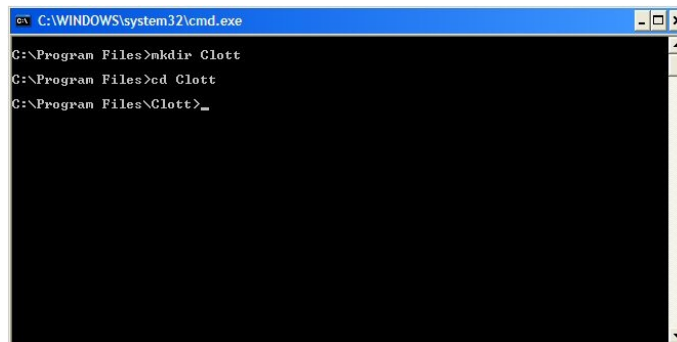8. Check installation directory:

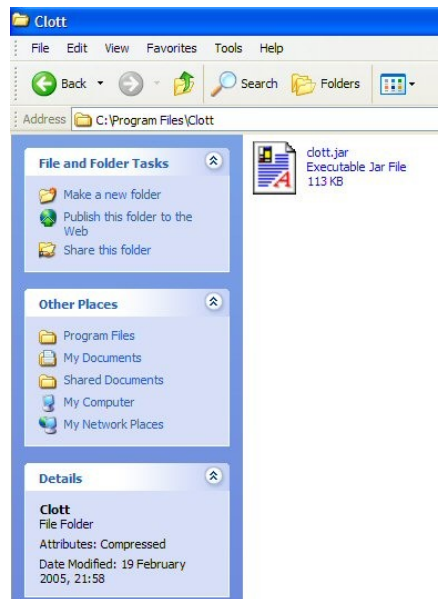9. Select Components as follows:
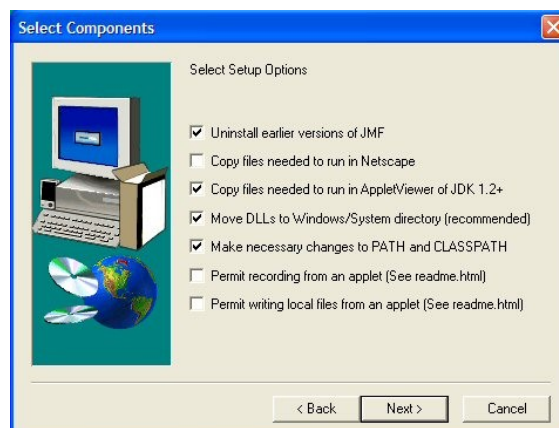
10. Time to reboot:

11. Repeat step 1.

Note: The directory creation in step 12 is optional as you may decide to copy clott.jar to another place in step 13.

12. Create a directory called 'Clott' in 'C:\Program Files\':

13. Copy 'clott.jar' to the 'Clott' directory you have just created, along with the '.html' files –

14. Well done!

Operation:

Double click on clott.jar or one of the '.html' files.

Index

Abbreviations

CLOTT   CLassroom On Task Tool
JAR   Java ARchive
JMF   Java Media Framework
JRE   Java Runtime Environment
HTML   HyperText Markup Language

Image File Formats

GIF   Graphic Interchange Format
JPEG   Joint Photographic Experts Group
PNG   Portable Network Graphics
TIF   Tagged Image File

Music File Formats

MP3 files   See supported formats for the JMF on sun website.
WAV files   See supported formats for the JMF on sun website.
AU files   8,16 bit m/s lin, G.711 U-Law and A-Law
AIFF files   8,16 bit m/s lin, G.711 U-Law, A-Law and IMA4 ADPCM
MID files   Type 1 & 2 MIDI
MP2 files   MPEG layer 1, 2 audio
MVR files   IBM HotMedia
GSM files   GSM mono audio
CDA files   Compact Disc Audio

Note: The JMF[9] is the Java Media Framework that is required to run Clott, please see the 'Installation Instructions'.

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[9] http://java.sun.com/products/java-media/jmf/2.1.1/download.html